

**POLYMERIC MATERIAL WITH VOIDS THAT COMPRESS TO ALLOW THE  
POLYMERIC MATERIAL TO ABSORB APPLIED FORCE AND DECREASE  
REACTION FORCE TO ONE OR MORE SENSOR FIBERS**

**ABSTRACT**

5           A polymeric material of an apparatus in one example abuts one or more sensor fibers.  
The polymeric material comprises a plurality of voids. Upon an introduction of an applied  
force to a portion of the polymeric material, one or more of the plurality of voids compress to  
allow the portion of the polymeric material to absorb a portion of the applied force and  
promote a decrease of a reaction force from the portion of the polymeric material to one or  
10   more of the one or more sensor fibers.